S
Control
Boise
Insect

NOT FOR PUBLICATION

Action		Initial
	Moncrief	
	Frykman	
	[illegible]	
	[illegible]	
	Moran	
	Love	
	Hartong	
	Melvin	
	Payne	
	TM Clerk	

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE
Ogden, Utah
Reed W. Bailey, Director

10 copies sent Boise with memo of 11/5/58

Boise National Forest
Annual Aerial Survey
September 1958

By

W. E. Cole - W. E. Mineau
Entomologists

Prepared by

Division of Forest Insect Research
Boise Research Center
Boise, Idaho

BOISE NATIONAL FOREST
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INTRODUCTION

The annual aerial survey of the Boise National Forest was conducted in the same manner as in previous years, i. e., flights were made to cover all forested areas by drainages. The purpose of the examination was to detect evidence of unusual forest insect activity.

When aerial observations indicated abnormal conditions further checks were made on the ground whenever possible. When formal ground appraisal surveys were required such was done and are reported separately.

Three degrees of intensity of damage, light, medium, and heavy, were used on the aerial work with defoliators that destroy the current year's needles. However, with defoliators such as the pine butterfly that destroy old growth needles detection is most effective by observing the adults in flight. When adults are numerous flying around tree tops further ground checking is indicated.

In the case of most bark beetles, the aerial detection reveals only the damage of the previous year's attacks and not the new infestations. In some cases there may be fading of foliage during the season of attack. Generally, ground work is required to determine the current status of bark beetle infestations.

FOREST RESUME'

The 1958 aerial surveys revealed some interesting infestations. However, only a few warranted ground appraisals.

The Douglas-fir beetle continues at a high level of damage within the tributaries of the Middle Fork Boise River in particular and can be found generally throughout the Boise National Forest. The beetle continues, as during the past 3-4 years, at an epidemic level within Roaring River and to a lesser degree within Queens River, Yuba River, and around Thorne Creek Butte. The other areas reported contain small patches of dead Douglas-fir that are relatively recent.

1/ Forest aid-research

Two areas of mountain pine beetle infestations in second-growth ponderosa pine were noted this year. The largest grouping, over 200 pine trees, was spotted within and bordering the town of Atlanta; the second area, of lesser intensity, was noted between Warm Springs and Wilson Creek near Deadwood Reservoir. The latter is within the area included in the 1951-52 Deadwood Bark Beetle Control Project.

The fir engraver in true firs appears generally less active than in previous years, but an endemic loss occurs throughout the forest.

The extent of budworm damage to Douglas-fir and true firs is at the lowest level in years. Only two main areas of infestation remain, others occur as small isolated pockets of budworm damage. Both the Coulter Summit area (10,000 acres) and the reinfestation within Sulphur Creek (17,000 acres) remained static in size and intensity for the third and second year respectively. None of the other areas of noticeable damage were larger than 2,500 acres in size.

Black-headed budworm damage in true firs decreased sharply in 1958. A total of 8,800 acres of defoliation was noted with the largest area of infestation being only 3,500 acres. However, the black-headed budworm can be found throughout most of the subalpine-timber types.

Of interest and new to the forest were two areas of damage by a pine shoot moth to pole-size ponderosa pine, and a defoliator-type damage to lodgepole pine reproduction. These three areas were of 300, 800, and 600 acres in size, respectively.

RESULTS BY DISTRICTS

The observed infestations are keyed by ranger district and described as follows:

Mountain Home District (D-1). In general, the Mountain Home District is relatively free of any serious loss due to forest insects. Only normal annual drain was noted with the exception of one area. Some 100-150 dying Douglas-fir were noted within Whiskey Jack, Lincoln, Red Warrior, and Wide West Creeks. An area of approximately 800 acres of ponderosa pine within Trinity Creek showed flagging characteristic of the pine shoot moth.

Cottonwood District (D-2). For convenience in reporting, that portion of Roaring River within D-2 will be reported under D-4. Other than Roaring River only Vaughn Creek contained any Douglas-fir beetle activity of consequence.

Within Pete and Vaughn Creeks approximately 1,200 acres of light budworm defoliation, and around Thorne Creek Butte approximately 1,000 acres of true firs showing black-headed budworm damage were noted.

Idaho City District (D-3). Ponderosa pine loss due to bark beetles is sporadic and represents no more than annual drain on the Idaho City District. However, the Douglas-fir beetle remains active within the head of Bannock Creek. An area of approximately 10,000 acres of true fir around Coulter Summit and within Clear Creek drainage was again noted as being defoliated. by both budworm and black-headed budworm. This area has remained static in size and intensity with medium-heavy defoliation since 1955.

Atlanta District (D-4). The Atlanta District contains the bulk of timber loss due to bark beetles on the forest. For the third consecutive year high losses of Douglas-fir are continuing within practically all the minor drainages along the Middle Fork Boise River between Roaring River and Yuba River. Over 2,000 "faders" were noted due to the Douglas-fir beetle with over 1,200 of these within Roaring River. Yuba River appeared "cleaner" this year than at any other time. Roaring River contained at least another 1,200 alpine fir faders due to the fir engravers. The other areas of Douglas-fir loss noted on the map represent smaller infestations and are of less consequence.

An infestation of mountain pine beetle in second growth ponderosa pine was noted within and around Atlanta. Over 200 dying trees were spotted from the air and the ground reconnaissance revealed another 100 trees attacked in 1958. This condition has been reported to the forest and remedial procedures started.

The aerial survey revealed approximately 1,700 acres of true firs around Trinity Peaks heavily defoliated by the black-headed budworm.

Lowman District (D-5). All of the areas of bark beetle activity within this district, as shown on the map, represent groups of less than 50 trees and indicate sporadic and scattered losses. No serious bark beetle infestations were found.

In general, defoliators were inactive this year on the Lowman District. Two small areas, totalling 3,500 acres of light budworm defoliation were noted within Eight-Mile Creek. The black-headed budworm was again present and affected approximately 5,500 acres to a light degree. About 600 acres of ponderosa pine between Crooked River and Bear Creek appeared infested with pine shoot moth. The damage was not serious.

Emmett District (D-6). The Emmett District is relatively free of forest insect damage. As usual the area around Sage Hen Reservoir shows an endemic loss due to the Douglas-fir beetle and one small area near Grassy Flats contained budworm and sawflies in Douglas-fir.

Garden Valley District (D-7). Endemic loss due to the Douglas-fir beetle was noted in practically every tributary along the Middle Fork Payette River with the exception of Scrivner Creek. Scrivner Creek contained over 200 dead Douglas-fir trees killed by the Douglas-fir beetle.

Mountain pine beetle was present at an endemic level in ponderosa pine within Anderson Creek.

Bear Valley District (D-8). An infestation of mountain pine beetle affecting approximately 50 ponderosa pine trees was found between Warm Springs and Wilson Creeks. This infestation lies within the area of the 1951-52 control project and a ground reconnaissance is planned.

Another infestation of interest is a defoliator affecting the terminal shoots of immature lodgepole pine, but the damage is not serious yet. Detection of this defoliation was made too late for indentification of the insect.

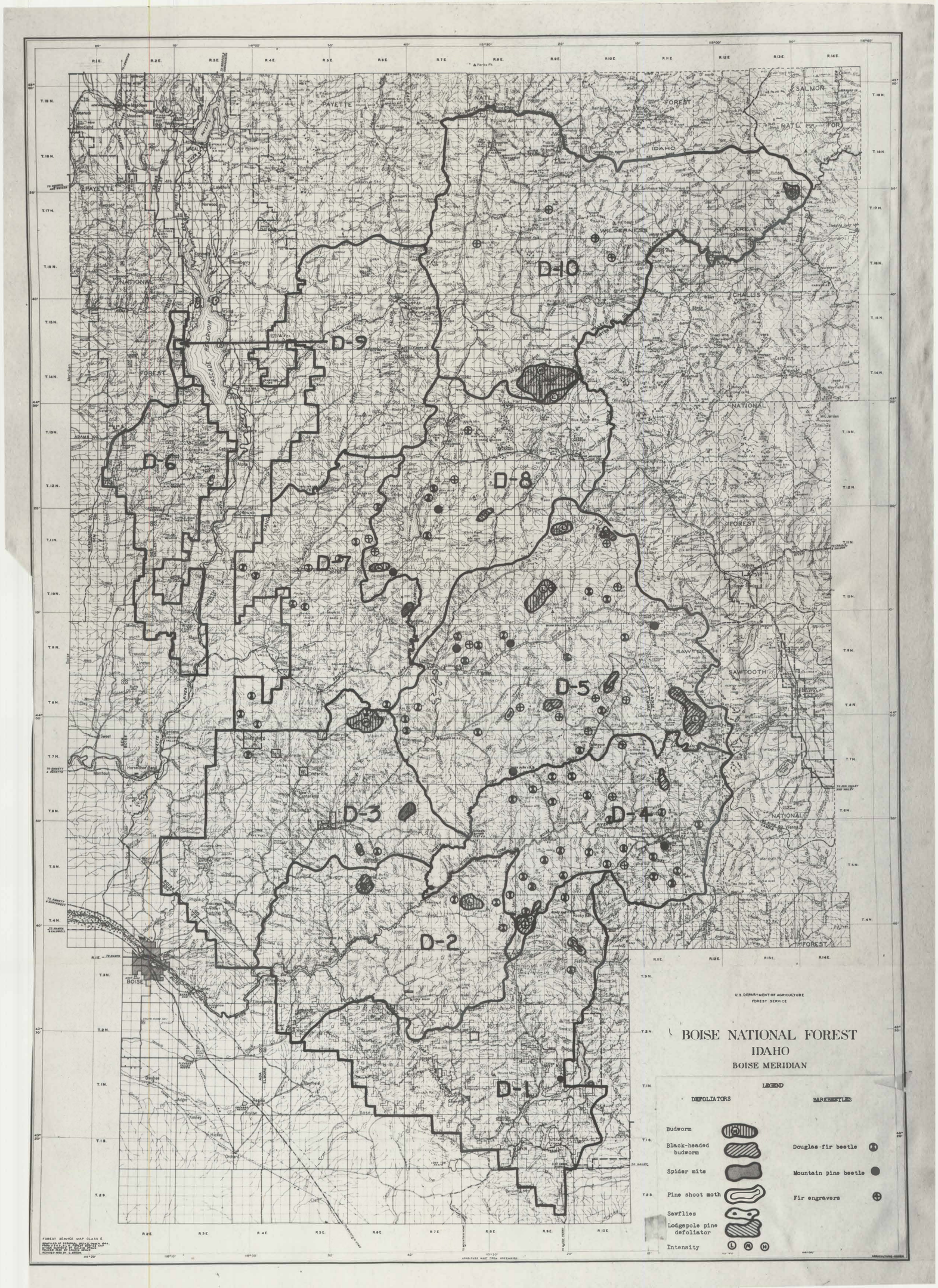
Cascade District (D-9). No unusual forest insect activity of any consequence was noted during the aerial survey with the exception that sawflies were found affecting white fir, lodgepole, and Douglas-fir to a light degree along the Cascade Reservoir.

Landmark District (D-10). The area of budworm reinfestation along Sulphur Creek remained static in size (17,000 acres). Medium degree of defoliation exists around Morehead Mountain, and a lighter degree in the southern portion along Boundary Creek.

A slight increase in mountain pine beetle activity along the Middle Fork Salmon River was noted this year, but it is still rated as endemic.

SUMMARY OF INSECT DAMAGE

District	Insect	Approximate damage: Trees killed	Approximate damage: Acres defoliated
Mountain Home (D-1)	Douglas-fir beetle	150	---
	Pine shoot moth	---	800
Cottonwood (D-2)	Douglas-fir beetle	50	---
	Budworm	---	1,200
	Black-headed budworm	---	1,000
Idaho City (D-3)	Douglas-fir beetle	50	---
	Budworm	---	10,000
Atlanta (D-4)	Douglas-fir beetle	2,000	---
	Mountain pine beetle	300	---
	Black-headed budworm	---	1,700
Lowman (D-5)	Bark beetles	Endemic	---
	Budworm	---	3,500
	Black-headed budworm	---	5,500
	Pine shoot moth	---	500
Emmett (D-6)	Bark beetles	Endemic	---
	Sawflies	---	Present
Garden Valley (D-7)	Douglas-fir beetle	200	---
	Mountain pine beetle	Static	---
	Spider mite	---	600
Bear Valley (D-8)	Mountain pine beetle	50	---
	Defoliator (Lpp)	---	600
Cascade (D-9)	Sawflies	---	Present
Landmark (D-10)	Budworm	---	17,000
Forest Total	Douglas-fir beetle	2,450	---
	Mountain pine beetle	300	---
	Fir engravers	Active	---
	Budworm	---	31,700
	Black-headed budworm	---	8,200
	Spider mite	---	600
	Pine shoot moth	---	1,300
	Sawflies	---	Present
	Defoliators (Lpp)	---	600


D-1
D-2
D-3
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D-8
D-9
D-10
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
BOISE NATIONAL FOREST
IDAHO
BOISE MERIDIAN
LEGEND
DEFOLIATORS
BARKBEETLES
Budworm
Black-headed budworm
Spider mite
Pine shoot moth
Sawflies
Lodgepole pine defoliator
Intensity
Douglas-fir beetle
Mountain pine beetle
Fir engravers
FOREST SERVICE MAP CLASS E